

not applicable to intermediate and advanced snowboarders. This is because the goal for these snowboarders is to have a board that is highly maneuverable or agile and does not have a tendency to lock the rider into a stable position for the sake of control. Nyman also greatly increases the edges surface area over that of conventional snowboard edge. This is a disadvantage to a proficient snowboarder because of the increased friction the edges create, resulting in slower acceleration and slower speeds for snowboarders.

Nyman's three saw tooth surfaces and dual acting edge is not applicable to grinding/sliding because of its multiple raised edges that would be prone to catching when the board is being slid across obstacles. Finally, Nyman's edge is only removable in one piece. As far as I am aware there has also never been an attempt to create a grind plate system for skis or snowboards which protects the edges from the damages of sliding and grinding and which can be removed for conventional skiing and snowboarding.

The purpose of this invention is to provide skis, snowboards and similar devices with replaceable and interchangeable edge sections and/or a fixed or removable grind plate. The sections are specifically designed to provide the optimal edges for conventional skiing and snowboarding and with a change of an edge section, the best edge for sliding or grinding. These edges can be easily removed and replaced for a given activity or due to edge damage. The removable system can adapt to a manufacturers specific design, allowing for it to be used on any current or future ski or snowboard design. Replaceable edges will also provide manufacturers with new design options for their products. This system can also use metal, plastic or composite materials to provide the best edge or combination of edge sections for a given activity, such as rail sliding or a given snow condition, i.e. ice, powder etc... The grind plates are designed to provide protection to a ski and snowboard edge during sliding or grinding. These plates can be made of metal, plastic or composite materials. They can be either permanently attached to a ski or snowboard or made for easy removal and replacement. They are designed to complement the ski or snowboards performance.

Replaceable edges/sections and grind plates will provide riders with a new level of equipment durability as well as customization, allowing for one pair of skis or a single snowboard to provide greater variety in performance and usability by being ideal for traditional skiing or snowboarding and ideal for sliding and grinding.

Drawings

Fig. 1 is a side view of the ski or snowboard constructed in accordance with the invention.

Fig. 2 is a side view of a ski or snowboard constructed in accordance with the invention, showing the center edge section removed.

Fig. 3 is an exploded side view of the ski or snowboard in fig. 2.

Fig. 4 is a bottom view of the ski or snowboard in fig. 1.

Fig. 5 is a bottom view of the ski or snowboard in fig. 2, showing the center edge sections removed.

Fig. 6 is a front to back view of a ski or snowboard showing the grind plates attached to the sides.

Fig. 7 is a front to back view of the ski or snowboard in fig. 6, with the grind plates removed.

Fig. 8 is a front to back view of a ski or snowboard grinding or sliding side ways on an object.

Fig. 9 is a front to back view of a ski or snowboard with grind plates attached, grinding or sliding side ways on an object.

Fig. 10 is a side view of a ski or snowboard grinding or sliding side ways on an object.

Reference Numerals in Drawings

1 top

2 tip

3 bottom

4 edge

4.1 removed edge

5 tail

6 removable edge section

7 grind plates

8 represents an object a skier or snowboarder could grind or slide on, such as: trees, rails, benches etc...

9 arrow indicates movement of ski or snowboard from left to right

10 indicates movement of ski or snowboard into page (away from viewer)

Detailed Description of Drawings

The ski or snowboard of the present invention is shown from a side view in its usable configuration Fig.1 and consists of a tip 2, a top 1, a tail 5, a bottom 3, and an edge 4.

Fig. 2 is a side view of the ski or snowboard in Fig. 1. This figure shows a section of edge 4, marked 4.1 removed from its edge section 6, on the ski or snowboard. The tip 2, bottom 3, top 1, and tail 5 are depicted for clarity. The edge sections 4.1 can be made of plastic, metal or composite materials and can be combined in any combination to the ski or snowboards removable edge section 6.

Fig. 3 is an exploded view of Fig. 2. This figure clearly shows a section of edge 4, marked 4.1 removed from its edge section 6. The tip 2, top1, and tail 5 are indicated for clarity. The removed edge sections 4.1 can be made of plastic, metal or composite materials and can be combined in any combination to the ski or snowboards removable edge section 6.

Fig. 4 is a bottom view of the ski or snowboard in its usable configuration, as show in Fig. 1. This figure shows the tip 2, bottom 3, side edges 4, in place in the center edge sections 6, and tail 5 to orient the viewer.

Fig. 5 is a bottom view of Fig. 2. This figure shows sections of the side edges 4, marked 4.1 removed from their edge sections 6. The tip 2, bottom 3 and tail 5 are labeled for clarity. The edge sections 4.1 can be made of plastic, metal or composite materials and can be combined in any combination to the ski or snowboards removable edge sections 6.

Fig. 6 is a front to back view of a ski or snowboard with grind plates 7, attached outside of the edges 4. The top 1, bottom 3 and side edges 4 are shown for clarity. The grind plates 7 can be made of plastic, metal or composite materials.

Fig. 7 is a front to back view or the ski or snowboard in Fig. 6, showing the grind plates 7, removed from the ski or snowboard. The top 1, bottom 3, and side edges 4 are shown for clarity. The grind plates 7 can be made of plastic, metal or composite materials.

Fig. 8 is a front to back representation of a ski or snowboard grinding/sliding from left to right 9, on an object 8. This figure shows how the edges 4, come into contact with the object 8, the ski or snowboard is grinding/sliding on. This is how the edges 4, become dull and damaged. The top 1, and bottom 3, of the ski or snowboard are shown for clarity.

Fig. 9 is a front to back representation of a ski or snowboard sliding/grinding from left to right 9, on an object 8. This figure shows how the grind plates 7, work to protect the edges 4, during sliding or grinding. The top 1 and bottom 3 are shown for clarity

Fig. 10 is a side representation of a ski or snowboard grinding/sliding into the page (away from the viewer) 10, on an object 8. This figure shows why it is of particular interest to have removable edge sections 6. This is because during grinding and sliding, the edges 4, incur most damage to the center sections 4.1. It is also of particular interest to make the removed edge sections 4.1 out of different materials. This is because soft metals, plastics and composite materials will work best for grinding or sliding, while; other hard metals, plastics and composite materials work best for conventional skiing or snowboarding. By having the ability to combine both to a single ski or snowboard a user will get more usability, durability and specificity out of a single pair of skis or a snowboard.